

REMARKS

In the Office Action under reply, claims 1-4, 6-11, 13 and 14, all the claims remaining in this application, were rejected primarily in view of the combination of published PCT application WO 02/39737 (Asada) and published U.S. application 2002/0012522 (Kawakami). Consistent with the previous Office Action, it is recognized that the Examiner is relying upon the Japanese-language published PCT application, which he is interpreting with the Asada U.S. published application 2004/0081437 that allegedly is based upon the published PCT application.

Accordingly, in the following discussion, the published Asada PCT application, as interpreted by the published Asada U.S. application, is referred to merely as Asada. Asada was combined with Kawakami to reject claims 1, 2, 4, 7-9, 11 and 14 as being obvious. The combination of Asada and Kawakami was further combined with U.S. Patent 7,047,305 (Brooks) to reject claims 3 and 10 under 35 USC 103. Finally, the combination of Asada and Kawakami was further combined with U.S. Patent 5,359,464 (Wilkinson) to reject claims 6 and 13 under 35 USC 103. Stated otherwise, where the prior rejections of Applicant's claims were based upon Asada alone, those prior rejections are repeated, but Asada now is combined with Kawakami.

Based upon the Examiner's rejection here under reply, it appears that the recitation of the "controller" in claim 1, and particularly the functions performed by that controller, may not have been fully appreciated. Accordingly, claim 1 is amended to obviate any ambiguity or misinterpretation that may have resulted in the prior art rejection of claim 1. Claim 8, which is directed to the method performed by the apparatus of claim 1, is similarly amended.

Notwithstanding the addition of Kawakami, it is repeated and respectfully submitted that even if Asada is supplemented by Kawakami, there still is no teaching in the cited prior art of a controller to generate frame rate information that identifies the set frame rate of respective

frames and, moreover, that generates sub-frame information that identifies those individual frames that are included in a reference frame period and that have the set frame rate which is higher than the reference frame rate. This is particularly recited in claim 1:

a controller for controlling said imaging device or said signal processor to establish a variable frame rate of said image data different from said predetermined frame rate, said established frame rate constituting a set frame rate, said controller generating frame rate information identifying said set frame rate of respective frames of said image data and generating sub-frame information identifying individual frames of said image data having said set frame rate when said set frame rate is higher than a reference frame rate and said individual frames are included in a frame period defined by said reference frame rate.

Thus, as illustrated in, for example, Figs. 12A-12J of the present application, the controller identifies those frames having the set frame rate (Fig. 12B) and identifies, for example by frame number, those frames of the set frame rate that are included in each reference period (Fig. 12C). This identification is included in the sub-frame information. As described in Applicant's specification, this information is used when changing the reproduction speed when the image signal is reproduced, thus enabling the reproduction speed to be equal to the reference speed, greater than the reference speed or less than the reference speed. The sub-frame information enables an operator to quickly and precisely identify those frames of the image data having a frame rate other than the reference frame rate, thereby permitting easy speed changes to effect desired special effects, such as slow motion and fast motion, on such image data that does not exhibit the reference frame rate. The combination of Asada and Kawakami fails to suggest this.

The Examiner apparently recognizes that Asada does not describe the generation of such sub-frame information. Paragraphs [0124]-[0125] of Asada, particularly referenced by the Examiner, describe rate information but fail to describe sub-frame information of the type specified in Applicant's claim 1 and described in Applicant's specification. While Asada states that the rate information may be recorded with the video signal (see paragraph [0133]), there is

no suggestion in Asada of generating or recording sub-frame information of the type claimed by Applicant. Accordingly, the Examiner turns to Kawakami to cure this deficiency of Asada.

Kawakami is directed to editing apparatus that operates on MPEG-encoded video data that includes I, P and B frames. The Examiner concludes that, since the MPEG standard identifies these frames, it would be obvious to replace such I, P and B indications with sub-frame information that identifies individual frames "having said set frame rate when said set frame rate is higher than a reference frame rate and said individual frames are included in a [reference] frame period." It is respectfully submitted that this is nothing more than reading into Kawakami a teaching found only in Applicant's disclosure. There is nothing in Kawakami that would enable an operator to quickly and precisely identify those frames of the image data having a frame rate other than the reference frame rate. Nor is there any suggestion in Kawakami that such frames having the set frame rate should be identified. Consequently, there is nothing in Kawakami that would enable one of ordinary skill in the art to perform easy speed changes and thereby achieve desired special effects, such as slow motion and fast motion, on such image data that does not exhibit the reference frame rate. Merely indicating which frames are I, P and B frames does not suggest to an ordinarily skilled engineer that individual frames having a higher frame rate (e.g. the set frame rate) and that extend within a reference period should be identified. To argue otherwise is an attempt to use Applicant's teachings in order to reconstruct the prior art. While *KSR* may have lowered the bar to establish obviousness, there still must be some reason, absent Applicant's disclosure, to modify a reference in a manner not contemplated by that reference.

Therefore, in view of the unobvious differences between Applicant's claim 1 and the combined teachings of Asada and Kawakami, the withdrawal of the rejection of claim 1 is respectfully solicited.

Applicant's claim 8 defines the method performed by the apparatus of claim 1. Claim 8 includes substantially the same limitations as are recited in claim 1, and as discussed above. It follows, then, that claim 8, like claim 1, is not obvious in view of the combination of Asada and Kawakami.

The remaining claims in this application depend either from claim 1 or from claim 8. Since these dependent claims include all of the limitations recited by the independent claim from which they depend, these dependent claims likewise are patentably distinct over the combination of Asada and Kawakami, even when this combination is supplemented by Brooks or Wilkinson. It is particularly noted that, in rejecting dependent claims 2 and 9, the Examiner contends that Asada describes a controller that establishes the variable frame rate "by altering a reading frequency at which the captured signal is read from said image backup device." Applicant's representative has carefully reviewed paragraph [0124] of Asada, specifically relied upon in this rejection, and has been unable to find any description or suggestion in Asada of altering the reading frequency at which the image signal is read from imaging unit 101. While the frame rate at the output of imaging unit 101 can be set to a multiple of a standard frame rate, Asada fails to describe the manner in which this is achieved.


Therefore, the withdrawal of the rejections of claims 1-4, 6-11 and 13-14, all the claims remaining in this application, and the issuance of the Notice of Allowance are respectfully solicited.

Statements appearing above in respect to the disclosures in the cited references represent the present opinions of the undersigned attorney and, in the event the Examiner disagrees with any of such opinions, it is respectfully requested that the Examiner specifically indicate those portions of the references providing the basis for a contrary view.

Please charge any additional fees that may be needed, and credit any overpayment, to our Deposit Account No. 50-0320.

Respectfully submitted,

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